

AMENDMENTS TO THE CLAIMS:

These claims replace all prior versions, and listings, of claims in the application:

1.(currently amended): An image monitor apparatus for monitoring an image, comprising:

- a camera which picks up an image;
- an illumination unit which includes,
 - a light emission unit having at least one light emitting element, and
 - an emission control unit which controls the at least one light emitting element; and
- a processing unit which includes,
 - an image signal acquiring unit which performs analog-to-digital conversion of said image picked up by said camera so as to generate a digitized image signal, and stores the digitized image signal,
 - a luminance examining unit which counts a sum total of luminance value of all pixels in a field of the image represented by said digitized image signal and examines whether or not said sum total of luminance value is greater than a predetermined threshold value, and determines whether or not an amount of light detected by said camera and stored in an image-pickup plane of the camera is appropriate for suppressing disturbances in said image, and
 - a luminance control unit which controls at least one of said camera and said illumination unit so that said amount of light becomes appropriate for suppressing disturbances in said image, when said luminance examining unit determines that the amount of light detected by said camera and stored in the image-pickup plane is not appropriate for

suppressing disturbances in said image, and which makes an initial setting of a shutter speed of said camera which is set to the slowest possible value in order to utilize external illumination, and the initial setting of a duration of illumination of said illumination unit which is set to the shortest time which can provide a sufficient amount of light for image processing, when a predetermined time elapses since said amount of light becomes appropriate for suppressing disturbances in said image making an initial setting of a shutter speed of said camera to the slowest possible value in order to utilize external illumination other than illumination of said illumination unit and the initial setting of a duration of illumination of said illumination unit is set to the shortest time which can provide sufficient amount of light for image processing.

2. (original): An image monitor apparatus according to claim 1, wherein said luminance control unit makes feedback control of said camera so that a shutter speed of said camera is increased within such a range that a duration in which a shutter of the camera is open is not shorter than a duration of illumination by the illumination unit, and an iris opening of said camera is maximized.

3. (original): An image monitor apparatus according to claim 1, wherein when said amount of light cannot become appropriate for suppressing disturbances in the image even when said shutter speed of said camera is increased by said feedback control to said duration of illumination, said luminance control unit increases an amount of light emitted by said illumination unit, and reduces the size of the iris opening.

4. (original): An image monitor apparatus according to claim 1, wherein said luminance control unit controls said illumination unit so that the at least one light emitting element emits light only when an image of a frame which is necessary for image processing is picked up by the camera.

5. (original): An image monitor apparatus according to claim 1, wherein said luminance control unit automatically detects blooming or smearing in said image based on said luminance of the image.